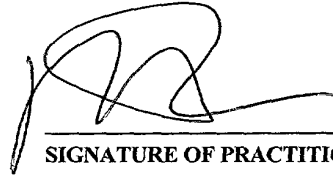


09/913669
518 Rec'd PCT/PTO 16 AUG 2001

[] 37 C.F.R. § 1.492(e) and (f) (surcharge fees for filing the declaration and/or filing an English translation of an International Application later than 20 months after the priority date.



SIGNATURE OF PRACTITIONER

Reg. No. 33,860

Peter F. Corless

(type or print name of practitioner)

Tel. No.: (617) 439-4444

Dike, Bronstein, Roberts & Cushman
Intellectual Property Practice
EDWARDS & ANGELL, LLP
P.O. Box 9169
P.O. Address

Customer No.:

Boston, Massachusetts 02209

#132151

91 prts

CEREBROVASCULAR REGENERATION/RECONSTRUCTION-PROMOTING AGENTS
AND SECONDARY NERVOUS TISSUE DEGENERATION-INHIBITING AGENTS
COMPRISING GINSENOSE Rb₁

Technical Field

The present invention relates to the pharmaceutical compositions comprising ginsenoside Rb₁, its metabolites or salts thereof, which are used for prevention, treatment or therapy of diseases caused by injuries to the nervous tissues or to the spinal cord. More particularly, the present invention pertains to the pharmaceutical compositions for prevention, treatment or therapy of the following disorders: diseases caused by secondary degeneration of the nervous tissues resulting from injuries to the nervous tissues, spinal cord injuries, head injuries, traumatic injuries to the nervous tissues or spinal cord, and demyelinating diseases caused by injuries to the nervous tissues or the spinal cord. Further, the present invention relates to the pharmaceutical compositions comprising ginsenoside Rb₁, its metabolites or salts thereof, which are used for promoting vascular regeneration and/or reconstruction, or relates to the pharmaceutical compositions comprising ginsenoside Rb₁, its metabolites or salts thereof, which are used for suppressing apoptosis or apoptosis-like cell death of oligodendrocytes. The present invention further relates to ginsenoside Rb₁ or its salts which are useful as promoters of

vascular regeneration and/or reconstruction, or as inhibitors of secondary nervous tissue degeneration.

The present invention further relates to preparations for intravenous administration, which are used for prevention, treatment or therapy of the diseases or disorders described above. The present invention also relates to the use of ginsenoside Rb₁ or its metabolites as a leading compound(s) for exploring novel active components or compounds involved in prevention, treatment or therapy of diseases of the nervous tissues or the spinal cord, or for exploring novel brain cell-protective agents or novel neuroprotective agents.

Background Art

Originally, methods for treatment of cerebral apoplexy (cerebral vascular diseases) are different among cerebral infarction (cerebral embolism and cerebral thrombosis), cerebral hemorrhage, transient ischemic attack and subarachnoidal hemorrhage. Strictly speaking, no effective countermeasures can be taken unless a cerebral CT inspection is performed. For example, thrombolytic agents can be used for the treatment of transient ischemic attack or cerebral infarction (cerebral embolism or cerebral thrombosis) but are contraindicated for the treatment of cerebral hemorrhage. However, cerebral apoplexy is a serious disease resulting in a permanent disorder of the brain's higher functional